DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A7EA Revision 3 Found Aircraft Development, Inc. FBA-2C FBA-2C1 FBA-2C2

January 11, 2005

TYPE CERTIFICATE DATA SHEET NO. A7EA

This data sheet which is a part of type certificate No. A7EA prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

Type Certificate Holder Found Aircraft Development Inc.

R.R. #2, Site 12, Box 10 95 Airport Road

Parry Sound Municipal Area Airport

Parry Sound ON P2A 2W8

I - Model FBA-2C, 5 PCLM (Normal Category), Approved June 23, 1965 by the FAA and February 19, 1964 by the Canadian Department of Transport (DOT)

Engine Lycoming O-540-A1C5

Fuel 91-96 minimum grade aviation gasoline

Engine limits Maximum for all operations, 250 hp. at 2575 r.p.m.

Full throttle at sea level

Propeller and McCauley variable pitch Model 2D36C28/80MM-6
Propeller limits Diameter: Maximum 74 inches, minimum 73 inches

No reduction in minimum size allowed

Pitch setting at Station 30.0: low 15.7°, high 32.0°

Constant speed governor Woodward 210395

Hartzell Constant Speed HC-927K-1D/8847-0 70 lb. (-63.0 in.)

Diameter: maximum 88 inches, minimum 88 inches Pitch setting at Station 30.0 inches: low 12°, high 26.4°

Woodward constant speed governor B210340

Airspeed limits (CAS) Vne (never exceed) 155.3 m.p.h. (135 knots)

Vno (max. structural cruising) 123.3 m.p.h. (107 knots) VA (maneuvering) 130 m.p.h. (112.5 knots)

Vfe (flaps extended) 108.0 m.p.h. (93.5 knots)

C.G. range

(Landing Gear Fixed)

Landplane and Skiplane (See Note 4 for Ski Installations)

Gross Weight	Forward Limit	Aft Limit
2850 lb.	+17.0 in. (15.2% MAC)	+24.5 in. (27.2% MAC)
2250 or less	+15.3 in. (12.6% MAC)	+24.5 in. (27.2% MAC)

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Seaplane (See Note 5 for Float Installations)

2850 lb. +17.0 in. (15.2% MAC) +23.5 in. (25.5% MAC) 2250 or less +15.3 in. (12.6% MAC) +23.5 in. (25.5% MAC)

Straight line variation between points given

Datum Main landing gear beam center line

M.A.C. 62.9 in. (L.E. of MAC is +22.40 in. aft of datum)

Leveling means Aircraft cabin floor level - laterally and longitudinally

Maximum weight Landplane and Skiplane - 2850 lb.

Seaplane - 2850 lb. (See Note 3 for eligibility at 3,000 lbs.)

Minimum crew 1 (pilot)

No. of seats 5 (2 at +17.8 in., 3 at +61.75 in.)

Maximum baggage 150 lb. at +92.5 in.

Fuel capacity 56.0 Imperial gallons (67.3 U.S. gallons) total (+22.2 in.)

28 Imperial gallons (33.6 U.S. gallons) each wing tank. 55.0 Imperial gallons (66.1 U.S. gallons) usable.

Oil capacity 10.5 Imperial quarts (12.6 U.S. quarts) max. (-38.8 in.)

Control surface movements Wing Flaps 0° up 32° down

12° Aileron 18° down up Elevator (0° Stab.) 29.5° 21.5° down up Stabilizer 3° 5° down up 30° 30° Rudder left right

Serial Nos. eligible 3 to 27 inclusive. The Canadian Department of Transport Certificate of Airworthiness for

export endorsed as noted under "Import Eligibility" must be submitted for each individual

aircraft for which application for certification is made.

Equipment The basic required equipment as prescribed in the applicable airworthiness regulations (see

Certification Basis) must be installed in the aircraft for certification. In addition, the following

items of equipment are required:

Landplane, Skiplane and Seaplane:

(a) D.O.T. Approved Flight Manual dated February 25, 1964.

(b) Stall Warning Indicator per Found Brothers Drawing No. W-535.

I I- Model FBA-2C1, (Bush Hawk) (Normal Category), Approved March 3, 2000 by the FAA and March 5, 1999 by the Canadian Department of Transport (DOT)

Engine Lycoming I0-540-D4A5 (260 HP) or

Lycoming I0-540-L1C5 (300 HP)

Fuel 100LL or 100 (Formerly 100/130) Grade aviation fuel

Engine limits Maximum for all operations; Full throttle at sea level

I0-540-D4A5: 260 HP at 2700 r.p.m. I0-540-L1C5: 300 HP at 2700 r.p.m.

Propeller and Hartzell 3-blade variable pitch HC-C3YR-1RF/F8468A-2 (R)

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Propeller Limits Diameter: Maximum 84 inches, Minimum 83 inches

Pitch setting at Station 30.0: low 11.2°

high 31.1°

Constant Speed Governor, Hartzell V5-4

Airspeed Limits With 260 HP I0-540-D4A5 engine

(CAS) Vne (never exceed) 162 m.p.h. (141 knots)

Vno (max. structural cruising)
VA (maneuvering)
145 m.p.h. (126 knots)
135 m.p.h. (117 knots)
Vfe (flaps extended)
118 m.p.h. (103 knots)

With 300 HP I0-540-L1C5 engine

Vne (never exceed)

Vno (max. structural cruising)

VA (maneuvering)

Ve (flaps extended)

162 m.p.h. (141 knots)

145 m.p.h. (126 knots)

135 m.p.h. (117 knots)

118 m.p.h. (103 knots)

C.G. range

(Landing Gear Fixed)

Landplane and Skiplane

 Gross Weight
 Forward Limit
 Aft Limit

 3200 lbs.
 +17.0 in. (15.2% MAC)
 +24.5 in. (27.2% MAC)

1900 +17.0 in. (15.2% MAC) +24.5 in. (27.2% MAC)

Seaplane

 Gross Weight
 Forward Limit
 Aft Limit

 3500 lbs.
 +17.0 in. (15.2% MAC)
 +23.5 in. (25.5% MAC)

1900 +17.0 in. (15.2% MAC) +23.5 in. (25.5% MAC)

Straight line variation between points given.

Additional limitations for specific ski and float installations may be contained in Notes 4 and 5.

Datum Main landing gear beam center line.

M.A.C. 62.9 in. (L.E. of M.A.C. is +22.40 in. aft of datum).

Leveling Means Aircraft cabin floor level – laterally and longitudinally.

Maximum Weight Landplane and skiplane 3,200 lbs.

Seaplane 3500 lbs. (see Note 5 for specific weight limitation with

each float installation.)

Minimum crew 1 (pilot)

Maximum 5, including pilot. (2 at +17.8 in., and 3 at +58 in.)

Occupants

Maximum Baggage 250 lbs. at 94 in.

Fuel Capacity At +21.8 in. <u>Liters Imp. Gals.</u> <u>U.S. Gals.</u>

 Usable
 372
 81.9
 98.3

 Unusable
 6
 1.4
 1.7

 Total
 378
 83.3
 100.0

Oil Capacity 11.4 liters / 10 imperial quarts / 12 U.S. quarts maximum

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Stabilizer 6° up 4° down Rudder 30° left 30° right

Serial Numbers 28, 29, 30 (260 HP engine)

Eligible 31 and subsequent. (260 HP or 300 HP engine)

Equipment The basic required equipment as prescribed in the applicable airworthiness regulations (see

Certification Basis) must be installed in the aircraft for certification

Approved With 260 HP engine:

Publications Transport Canada Approved Flight Manual FAC2-M100 dated May 20, 2000, Issue No. 3, and

subsequent approved revisions.

With 300 HP engine:

Transport Canada Approved Flight Manual FAC2-M300 dated May 20, 2000, Issue No. 1, and

subsequent approved revisions.

With 260 HP or 300 HP engine: Maintenance Program FAC2-M200.

I II- Model FBA-2C2, (Bush Hawk XP) (Normal Category), Approved January 11, 2005 by the FAA and May 14, 2004 by the Canadian Department of Transport (DOT)

Engine Lycoming I0-540-L1C5 (300 HP)

Fuel 100LL or 100 (Formerly 100/130) Grade aviation fuel

Engine limits Maximum for all operations 2700 r.p.m.

Propeller and 1. Hartzell 3-blade variable pitch HC-C3YR-1RF/F8468A-2 (R)

Propeller Limits Diameter: Maximum 84 inches, Minimum 83 inches

Pitch setting at Station 30.0: low 11.2° high 31.1°

Constant Speed Governor, Hartzell V5-4

2. Hartzell 3-blade variable pitch HC-C3YR-1RF/F8068 Diameter: Maximum 82 inches, Minimum 81 inches

Pitch setting at Station 30.0: low 12.3°

high 31.0°

Constant Speed Governor, Hartzell V5-4

Airspeed Limits

(CAS) Vne (never exceed) 182 m.p.h. (158 knots)

Vno (max. structural cruising)

VA (maneuvering)

Va (maneuvering)

Ve (flaps extended)

161 m.p.h. (140 knots)

131 m.p.h. (114 knots)

132 m.p.h. (115 knots)

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C.G. range (Landing Gear Fixed)	3500 lbs. 2750 lbs 1950 Seaplane Gross Weight	Forward Limit +20.5 in. +17.0 in. +17.0 in. Forward Limit +20.5 in.	Aft Limit +24.5 in. +24.5 in. +24.5 in.			
	3800 lbs. 2750 lbs	+17.0 in.	+23.5 in. +23.5 in.			
	2250	+17.0 in.	+23.5 in.			
	Straight line variation between points given. Gross weight and c.g. may vary depending the installation of Optional Equipment.					
Datum	Landplane: Main wheel a Seaplane: Lower forward	axle. I corner of the front door.				
M.A.C.	62.3 in.					
Leveling Means	Aircraft cabin floor level	l – laterally and longitudinally.				
Maximum Weight	Landplane Seaplane	3,500 lbs. 3800 lbs. (see Note 5 for specific each float installation.)	c weight limitation with			
Minimum crew	1 (pilot)					
Maximum Occupants	5, including pilot.	(2 at +17.8 in., and 3 at +62 in.)			
Maximum Baggage	250 lbs. at 94 in.					
Fuel Capacity	At +21.8 in. Liter Usable 37 Unusable Total 37	2 81.9 98.3 6 1.4 1.7				
Oil Capacity	11.4 liters / 10 imperial quarts / 12 U.S. quarts maximum					
Control Surface Movements	Wing Flaps 0° Aileron 18° Elevator (0° Stab.) 29.5° Stabilizer 6° Rudder 30°	up 30° down up 12° down up 21.5° down up 4° down left 24° right				
Serial Numbers Eligible	100 and subsequent.					
Equipment		ment as prescribed in the applicable be installed in the aircraft for certification.				
Approved Configuration			ort Canada Approved revision of the pril 15, 2004, and subsequent TCCA			

approved revision.

Approved

Transport Canada Approved Flight Manual FAC2-M400, dated December 9, 2003, Issue 1, and

Publications subsequent approved revisions.

Maintenance Program FAC2-M200.

Certification basis

FBA-2C

CAR 3 dated May 15, 1956 and Amendments 3-1 to 3-7 inclusive. Type Certificate No. A7EA issued June 23, 1965. Date of Application for Type Certificate February 11, 1963.

FBA-2C1

Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by 23-1 through 23-6 except as follows:

FAR 23.51; 23.65; 23.75; 23.77; 23.611; 23.619; 23.623; 23.683; 23.689; 23.775; 23.871; 23.954; 23.1147; 23.1323; and 23.1563 amended by amendment 23-7. FAR 23.1524 amended by amendment 23-10. FAR 23.771 and 23.1365 amended by amendment 23-14. FAR 23.607; 23.675; 23.685; 23.733; and 23.1309 amended by amendment 23-17. FAR 23.959 amended by amendment 23-18. FAR 23.1301 amended by amendment 23-20. FAR 23.1353; 23.1541; and 23.1559 amended by amendment 23-21. FAR 23.603; 23.605; 23.863; and 23.1545 amended by amendment 23-23. FAR 23.1529 amended by amendment 23-26. FAR 23.995; 23.1143; 23.777; 23.779; and 23.781 amended by amendment 23-29. FAR 23.1; 23.853; and 23.1165 amended by amendment 23-34. FAR 23.787 amended by amendment 23-36. FAR 23.1311 and 23.1321 amended by amendment 23-41. FAR 23.301; 23.331; 23.351; 23.421; 23.423; 23.425; 23.427; 23.441; 23.443; 23.677; 23.701; 23.735 and 23.831 amended by amendment 23-42. FAR 23.901; 23.903; 23.905; 23.925; 23.951; 23.953; 23.955; 23.957; 23.963; 23.965; 23.967; 23.971; 23.973; 23.975; 23.977; 23.991; 23.993; 23.997; 23.999; 23.1093; 23.1145; 23.1303; 23.1322; 23.1337; 23.1351; 23.1357; 23.1361; and 23.1385 amended by amendment 23-43. FAR 23.562(a) and 23.562(e) amended by amendment 23-44. FAR 23.33; 23.305; 23.321; 23.397; 23.561; 23.572; 23.613; 23.621; 23.655; 23.731; and 23.1549 amended by amendment 23-45. FAR 23.783; 23.805; 23.807 and 23.811 amended by amendment 23-46.

FAR 36 dated December 1,1969, as amended by Amendment 36-1 through 36-22.

FBA-2C2

The Certification Basis for the model FBA-2C1, except as follows: FAR 23.49; 23.141; and 23.867 amended by amendment 23-7. FAR 23.1397; 23.1401 amended by amendment 23-11. FAR 23.345; 23.723 amended by amendment 23-23. FAR 23.2 amended by amendment 23-36. FAR 23.1305; 23.1307; 23.1365; 23.1387; 23.1389; 23.1391; 23.1393; 23.1395, and 23.1431amended by amendment 23-43. FAR 23.25; 23.207; and 23.473 amended by amendment 23-45.

FAR 36 dated December 1,1969, as amended by Amendment 36-1 through 36-22.

Import eligibility

A U.S. Airworthiness Certificate may be issued on the basis of the Canadian Department of Transport "Certificate of Airworthiness for Export" signed by or for the Minister of Transport. This form must contain the following statement: "This certifies that the aircraft described below has been manufactured in conformity with data forming the basis for D.O.T. Type Approval No. 67, Issue 8 (FAA Type Certificate No. A7EA) and to be in a condition for safe operation."

Data Pertinent To All Models Except As Indicated

- NOTE 1. (a) Current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary, must be in each aircraft at the time of original certification and at all times thereafter.
 - (b) The certificated empty weight and corresponding center of gravity locations must include unusable fuel. FBA-2C 7.5 lbs. (+22.2 in.) and unusable oil of 2.8 lb. (-38.8 in.).

FBA-2C1 Bush Hawk 10.2 lbs. (+21.8 in) FBA-2C2 Bush Hawk XP 10.2 lbs. (+21.8 in) A7EA Page 7 of 9

NOTE 2. The following placards must be displayed in clear view of the pilot:

FBA-2C

- (a) "THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS IN THE FORM OF PLACARDS, MARKINGS AND MANUALS".
- (b) "NO ACROBATIC MANEUVERS INCLUDING SPINS APPROVED".

FBA-2C1 and FBA-2C2

- (a) "The markings and placards installed in this airplane contain operating limitations which must be complied with when operating this airplane in the normal category. Other operating limitations which must be complied with when operating this airplane in this category are contained in the Airplane Flight Manual."
- (b) Normal Category: "No acrobatic maneuvers including spins approved."
- $(c) \quad \text{``Flight into known icing conditions is prohibited. This airplane is certified for the following flight operations:} \\$

DAY-NIGHT-VFR-IFR (WITH REQUIRED EQUIPMENT)"

NOTE 3. FBA-2C

Serial Nos. 3,5 and up, eligible for 3,000lb. Gross weight modification on seaplane per Found Brothers Modification No. 117, and the following are applicable:

Airspeed limits (CAS)	Vne (never excee	153 m	153 m.p.h.				
	Vno (max. struct	122 m	122 m.p.h.				
	VA (maneuverin	VA (maneuvering)					
	Vfe (flaps extend	111 r	111 m.p.h.				
C.G. Range		Fwd. Limit 15.3 in. aft of datum at all weights Aft limit 23.6 in aft of datum all weights					
Maximum Weight	3,000 lbs.						
Control surface movements	Wing Flaps	0°	up	32°	down		
	Aileron	18°	up	12°	down		
	Elevator (0° Stab.) 29.5°	up	21.5°	down		
	Stabilizer	4.5°	up	3.5°	down		
	Rudder	30°	left	30°	right		

Equipment

In addition to the pertinent basic equipment specified in the applicable airworthiness regulations (CAR 3), the following items of equipment must be installed:

(a) Hartzell Constant Speed HC-927K-1D/8847-0 70 lb. (-63.0 in.)

Diameter: maximum 88 in. minimum 88 in.

Pitch setting at Station 30.0 in.: low 12°, high 26.4°

Woodward Constant Speed Governor B210340

- (b) D.O.T. approved Flight Manual dated April 28, 1965
- (c) Stall warning indicator per Found Brothers Drawing No. W-535.

NOTE 4. Ski Installations: FBA-2C

(a) Federal Model CF3000; installed in accordance with Found Brothers Drawing No. 2C36-1 Issue 2C.

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NOTE 5. Float Installations:

FBA-2C

(a) EDO Model 249A-2870; installed in accordance with Found Brothers Drawing No. 2C37-1 Issue 2A.

FBA-2C1

- (a) EDO Model 628-2960 floats, or Model 249A-2870 (modified per EDO drawing X-43521) floats, with 260 HP engine. Float installation in accordance with Found Aircraft Canada Inc. drawing No. D210 Issue 1. Maximum gross weight allowable 3200 lbs.
- (b) Aerocet Model 3500 floats with 260 HP engine. Float installation in accordance with Found Aircraft Canada Inc. drawing No. D211 Issue 1. Maximum gross weight allowable 3350 lbs.
- (c) Aerocet Model 3500L floats with 260 HP engine. Float installation in accordance with Found Aircraft Canada Inc. drawing No. D211 Issue 1. Maximum gross weight allowable 3350 lbs.
- (d) Aerocet Model 3500 floats with 300 HP engine. Float installation in accordance with Found Aircraft Canada Inc. drawing No. D212 Issue 1. Maximum gross weight allowable 3500 lbs.
- (e) Aerocet Model 3500L floats with 300 HP engine. Float installation in accordance with Found Aircraft Canada Inc. drawing No. D211 Issue 1. Maximum gross weight allowable 3350 lbs.

FBA-2C2

- a) Aerocet Model 3500 floats. Float installation and operation in accordance with Master Drawing List, Document No. MDL-1119 and Flight Manual Supplement M400-S02, both Transport Canada Approved December 19, 2003, or later approved revisions. Maximum gross weight allowable 3600 lbs.
- b) Aerocet Model 3500L floats. Float installation and operation in accordance with Master Drawing List, Document No. MDL-1119 and Flight Manual Supplement M400-S01, both Transport Canada Approved December 19, 2003, or later approved revisions. Maximum gross weight allowable 3800 lbs.
- c) Aerocet Model 3400 amphibious floats. Float installation and operation in accordance with Master Drawing List, Document No. MDL-1150 and Flight Manual Supplement M400-S10, both Transport Canada Approved December 19, 2003, or later approved revisions. Maximum gross weight allowable 3775 lbs.
- d) Wipaire 3450 amphibious floats. Float installation and operation in accordance with Master Drawing List, Document No. MDL-1118 and Flight Manual Supplement M400-S09, both Transport Canada Approved April 15, 2004, or later approved revisions. Maximum gross weight allowable 3700 lbs.
- e) Wipaire 3450 seaplane floats. Float installation and operation in accordance with Master Drawing List, Document No. MDL-1182 and Flight Manual Supplement M400-S08, both Transport Canada Approved April 15, 2004, or later approved revisions. Maximum gross weight allowable 3700 lbs.

NOTE 6. **A-Oversize Tire Installation:**

FBA-2C1

(a) GAR-AERO oversize wheels and tires, plus oversize tail wheel, with 260 HP or 300 HP engine. Wheel and tire installation in accordance with the following Found Aircraft Canada Inc. drawings: No. D205 Issue 1 with 260 HP engine. No. D206 Issue 1 with 300 HP engine. A7EA Page 9 of 9

FBA-2C2

a) GAR-Aero Wheel Adapters and 8.5-10 Tires. Installation and operation in accordance with Master Drawing List, Document No. MDL-1117 and Flight Manual Supplement M400-S03, both Transport Canada Approved April 15, 2004, or later approved revisions. Maximum gross weight allowable 3500 lbs.

B- Interior Equipment:

FBA-2C2

- Height Adjustable Front Seats. Installation in accordance with Master Drawing List, Document No. MDL-1047, Transport Canada Approved April 15, 2004, or later approved revision.
- b) Individual Rear Seats. Installation and operation in accordance with Master Drawing List, Document No. MDL-1121 and Flight Manual Supplement M400-S07, both Transport Canada Approved April 15, 2004, or later approved revisions.
- NOTE 7. Position and Instrument Lights per Found Brothers Modification No. 118.
- NOTE 8. Model FBA-2C1 aircraft modified per found Aircraft modification FAC2 1043 are structurally and functionally equivalent to the FBA-2C2 and may be equipped and operated with the optional equipments of the FBA-2C2 model. In addition, these aircraft must be operated in accordance with Found Aircraft Flight Manual FAC2-M400.

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